

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of :      Oliver SCHADT et al.

Serial No.: 10/552,064

Group Art Unit: 1624

Filed: October 5, 2005

Examiner: JARRELL, Noble E.

Title: SUBSTITUTED PYRAZOLE COMPOUNDS

**SUPPLEMENTAL REPLY**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:

Further to the Reply filed on May 11, 2009, please consider the following additional comments.

The Office Action on page 2 admits that certain compounds with a specific list of substituents have written description.

However, the allegations regarding  $R^3$  and  $R^4$  do not appear to take into account the  $R^3/R^4$  proviso, i.e., "one of the radicals  $R^3$  or  $R^4$  denotes H." Thus,  $R^3$  being alkyl-piperazine, alkyl-NH-piperazine or hydroxy alkyl, and  $R^4$  being isoxazole is not a combination recited. Yet, the Office Action admits that written description for such compounds is present.

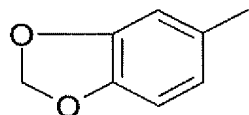
Also, the list of possible substituents admittedly having written description for  $R^1$  is lacking (substituted) phenyl. However, such an  $R^1$  is even present in the elected species and additionally this substituent is part of the explicit manufacturing examples 1 to 7, which disclose reaction conditions, solvents and yields. There is no basis for the allegations for this additional reason as well.

Moreover,  $R^1$  being substituted phenyl and especially halogen-substituted phenyl (making up for the (halogen-substituted) biphenyl group in the compounds wherein  $X = CH$ ) is present in a large number of compounds explicitly disclosed in the instant application and falling under the restrictions/election requirement, e.g., page 30, compounds (17) to (20); page 46, compounds (279) to (281); page 49, compounds (329) to (331); page 52, compounds

(379) to (381); page 58, compounds (479) to (481) and compounds (532), (536), (539), (541), (546), (558), (559), (560), (570), (586), (624), (638), (645), etc., (with biol. activity data).

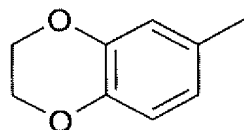
Additional examples for disclosed compounds of, e.g., elected group III, are:

$R^1$  = 4-Benzo-1,3-dioxol-5-yl, e.g.



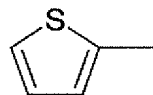
(531), (533), (534), (547), (550), (569), (612), etc. (with biol. activity data!)

$R^1$  = 2,3-Dihydrobenzo-1,4-dioxin-6-yl, e.g.



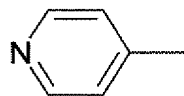
(535), (554), (557), (572), (595), etc. (with biol. activity data),

$R^1$  = Thiophenyl, e.g.



(283), (333), (383), (433), (483), etc.

$R^1$  = Pyridinyl, e.g.



(282), (332), (382), (432), (482), etc.

Moreover, the preparation/manufacturing process as given by Examples 1-7 supports and enables the manufacture of all compounds discussed herein, since they are all produced from structure/intermediate 4 as given in Example 3/4.

Other residues  $R^1$  than (substituted) phenyl can be introduced in completely analogous manner as shown in the conversion from structure/intermediate 4 to structure/intermediate 5, i.e. by aromatic substitution, which is one of the very basic reactions in organic synthesis.

The further steps according to Examples 5 throughout 7 can be applied in analogous or even identical manner to produce the piperazine compounds, e.g., of group III.

Reconsideration of the rejections is respectfully and courteously requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

/Csaba Henter/

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